

CLAIMS

- 5 1. An alarm clock in communication with an external source of at least one audio data file, the alarm clock comprising:
- a digital signal processor for receiving a data signal from the external source and for decoding the received data signal to obtain the audio data file;
- a memory for storing the audio data file;
- 10 a programmable controller for coordinating the transfer of the audio data file from the digital signal processor to the memory, and for activating an alarm sound coded in the audio data file when the programmable controller determines that the alarm sound is required to fulfill the programming instructions of the programmable controller; and
- a speaker for playing the alarm sound.
2. An alarm clock as claimed in claim 1 further comprising a display for displaying information received from the programmable controller regarding the programming instructions.
- 20 3. An alarm clock as claimed in claim 1 further comprising at least one manual input control that is used to provide an input of information to the programmable controller to supplement the programming instructions of the programmable controller.
- 25 4. An alarm clock as claimed in claim 1 further comprising an audio playback device wherein the device can be accessed by the programmable controller as an alternate source of an audio data file for use in the programmable controller fulfilling the programming instructions.

5. An alarm clock as claimed in claim 4 wherein the audio playback device is at least one of a cassette tape player, a CD-ROM player, a radio, a computer disk drive, a video cassette player, and a video digital drive.

6. An alarm as claimed in claim 1 further comprising:
a video display;
a memory for storing a video data file; and
a programmable controller for displaying the encoded video image on the display when the programmable controller determines that the display of the video image is required to fulfill the programming instructions.

7. An alarm clock as claimed in claim 6 further comprising:
a means of connection to an external source of at least one video data file;
a digital signal processor for receiving a data signal from the external source, and for decoding the received signal to obtain the video data file; and
a programmable controller for coordinating the transfer of the video data file from the digital signal processor to the memory.

8. An alarm clock as claimed in claim 1 wherein the memory can be used to store at least two data files that are one of audio and video.

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9. An alarm clock as claimed in claim 1 wherein the alarm clock is connected to the external source of at least one audio data file by a digital signal processor receiving signals from at least one of an internet connection, a local computer network connection, an independent data drive, an independent audio playback device, and an independent computer.

10. An alarm clock as claimed in claim 1 wherein the memory for storing the audio data file is located separate from the physical alarm clock unit and is accessed by the alarm clock by a data connection.

11. An alarm clock as claimed in claim 1 wherein the memory performs as a buffering memory.

12. An alarm clock as claimed in claim 10 wherein the data connection connects the alarm clock to at least one of an external computer, an external data storage device, an external computer drive unit, a computer server that is part of a local computer network, and a computer server that is part of the world wide web internet.

13. An alarm clock as claimed in claim 1 wherein the speaker for playing the alarm sound is connected to the alarm clock by one of a direct, wired connection to a speaker, a wireless radio connection to a speaker, a wireless infrared connection to a speaker, and a means of transmitting data to a speaker that includes transmitting data in a wireless manner.

14. An alarm clock as claimed in claim 1 wherein the digital signal processor decodes the received signal to obtain a set of transmitted programming instructions that are used to supplement the programming instructions of the programmable controller.

15. An alarm clock as claimed in claim 14 wherein the received signal is received from one of an Internet connection, a local computer network connection, an independent data drive, an independent audio playback device, and an independent computer.

16. An alarm clock as claimed in claim 14 wherein the programmable controller sends a data signal to the digital signal processor, and the digital signal processor transmits a signal to an external receiving device.

17. An alarm clock as claimed in claim 1 wherein the time and date on the alarm clock is synchronized with the time and date on the external data source.

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